## ANALOG/DIGITAL CONVERSION METHOD AND DEVICE

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## **Abstract**

PROBLEM TO BE SOLVED: To perform the analog/digital conversion processing of high resolution at a high speed without being affected by electrical noise and without generating noise by obtaining digital output signals corresponding to the value of analog input signals by photoelectrically converting the output light. SOLUTION: The output light beam of a light beam deflector 6 is supplied through a prism 12 and a lens 14 to a hologram element 16 as the address light. The hologram element 16 obtains the output light provided with a digital pattern recorded at a position irradiated with the address light. The output light from the hologram element 16 is converted to electric signals by a photoelectric (OE) converter 24 and outputted from an output terminal 26 as the digital output signals. Since the address processing of digital information is performed by the control of the deflection angle of the address light in such a manner, it is highly accurately performed at an extremely high speed. Thus, the analog/ digital conversion processing of the high resolution is executed at the extremely high speed.

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